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1. A CMOS image sensor, comprising:
pixel sensors arranged in a two-dimensional array;
means, disposed in each pixel sensor, for obtaining a signal whose
reset noise is reduced and that corresponds to the absolute value of the amount of
incident light; and
means for outputting said signal in a block-scanning fashion.
2. A pixel sensor for use in a CMOS image sensor, said pixel sensor
comprising:
a photodiode at a signal detection node; and
a pair of pass transistors, which passes a photodiode reset signal to the
gate of a transistor that resets said photodiode, only when said pixel sensor is
selected.
3. A CMOS image sensor comprising a plurality of pixel sensors
according to Claim 2, said pixel sensors being arranged in a two-dimensional array,
wherein said photodiode reset signal is given as the logical AND of a
column block selection signal and a pixel reset signal.
4. A pixel sensor comprising:
floating diffusion at a signal detection node; and
a pair of pass transistors, which passes a transfer signal to the gate of a
transistor that resets said photodiode, only when said pixel sensor is selected.
5. A CMOS image sensor comprising a plurality of pixel sensors
according to claim 4 arranged in a two-dimensional array,
wherein said transfer signal is given as the logical AND of a column
block selection signal and a pixel transfer signal.
6. A CMOS image sensor comprising:
a plurality of photogate-type pixel sensors arranged in a
two-dimensional array;
a pair of pass transistors for passing a photogate control signal thereby
transferring a signal charge, only when a corresponding row is selected; and
a pair of pass transistors for passing a pixel transfer signal thereby
allowing a signal charge to be transferred, only when a corresponding column block is
selected.

7. The CMOS image sensor according to Claim 6, wherein said pixel transfer signal falls down before said photogate control signal rises up.

8. A CMOS image sensor comprising:
a pixel sensor according to claim 2; and
5 means for selectively connecting the output of the pixel sensor to a circuit for reading one row of block.

9. A CMOS image sensor comprising:
a pixel sensor according to claim 4; and
10 means for selectively connecting the output of the pixel sensor to a circuit for reading one row of block.

10. A CMOS image sensor comprising:
a pixel sensor according to claim 6; and
means for selectively connecting the output of the pixel sensor to a circuit for reading one row of block.

11. A camera that automatically controls brightness, comprising:
a CMOS image sensor according to claim 1;
15 means for estimating the average brightness over an entire screen of said CMOS image sensor from brightness detected for a several blocks in a central area and in a peripheral area of the screen; and
20 a programmable gain amplifier having a gain that is automatically controlled in accordance with the estimated brightness.

12. A camera that automatically controls brightness, comprising:
a CMOS image sensor according to claim 3;
25 means for estimating the average brightness over an entire screen of said CMOS image sensor from brightness detected for a several blocks in a central area and in a peripheral area of the screen; and
a programmable gain amplifier having a gain that is automatically controlled in accordance with the estimated brightness.

13. A camera that automatically controls brightness, comprising:
30 a CMOS image sensor according to claim 5;
means for estimating the average brightness over an entire screen of said CMOS image sensor from brightness detected for a several blocks in a central area and in a peripheral area of the screen; and

a programmable gain amplifier having a gain that is automatically controlled in accordance with the estimated brightness.

14. A camera that automatically controls brightness, comprising:

a CMOS image sensor according to claim 6;

means for estimating the average brightness over an entire screen of said CMOS image sensor from brightness detected for a several blocks in a central area and in a peripheral area of the screen; and

a programmable gain amplifier having a gain that is automatically controlled in accordance with the estimated brightness.

15. A camera that automatically controls brightness, comprising:

a CMOS image sensor according to claim 7;

means for estimating the average brightness over an entire screen of said CMOS image sensor from brightness detected for a several blocks in a central area and in a peripheral area of the screen; and

a programmable gain amplifier having a gain that is automatically controlled in accordance with the estimated brightness.

16. A camera that automatically controls brightness, comprising:

a CMOS image sensor according to claim 8;

means for estimating the average brightness over an entire screen of said CMOS image sensor from brightness detected for a several blocks in a central area and in a peripheral area of the screen; and

a programmable gain amplifier having a gain that is automatically controlled in accordance with the estimated brightness.

17. A monitor camera, comprising:

a CMOS image sensor according to claim 1;

means for detecting whether there is a substantial change in an image by reading several blocks in a central area and in a peripheral area of an image screen of said CMOS image sensor; and

means for continuously taking an image over the entire screen when a substantial change is detected.

18. A monitor camera, comprising:

a CMOS image sensor according to claim 3;

means for detecting whether there is a substantial change in an image by reading several blocks in a central area and in a peripheral area of an image screen of said CMOS image sensor; and

means for continuously taking an image over the entire screen when a substantial change is detected.

19. A monitor camera, comprising:

a CMOS image sensor according to claim 5;

means for detecting whether there is a substantial change in an image by reading several blocks in a central area and in a peripheral area of an image screen of said CMOS image sensor; and

means for continuously taking an image over the entire screen when a substantial change is detected.

20. A monitor camera, comprising:

a CMOS image sensor according to claim 6;

means for detecting whether there is a substantial change in an image by reading several blocks in a central area and in a peripheral area of an image screen of said CMOS image sensor; and

means for continuously taking an image over the entire screen when a substantial change is detected.

21. A monitor camera, comprising:

a CMOS image sensor according to claim 7;

means for detecting whether there is a substantial change in an image by reading several blocks in a central area and in a peripheral area of an image screen of said CMOS image sensor; and

means for continuously taking an image over the entire screen when a substantial change is detected.

22. A monitor camera, comprising:

a CMOS image sensor according to claim 8;

means for detecting whether there is a substantial change in an image by reading several blocks in a central area and in a peripheral area of an image screen of said CMOS image sensor; and

means for continuously taking an image over the entire screen when a substantial change is detected.

23. An autofocus camera, comprising:
a CMOS image sensor according to claim 1;
means for adjusting focus by reading several blocks in a central area of
an image screen of said CMOS image sensor; and
5 means for taking an image over the entire screen after completion of
the focus adjustment.

24. An autofocus camera, comprising:
a CMOS image sensor according to claim 3;
means for adjusting focus by reading several blocks in a central area of
10 an image screen of said CMOS image sensor; and
means for taking an image over the entire screen after completion of
the focus adjustment.

25. An autofocus camera, comprising:
a CMOS image sensor according to claim 5;
15 means for adjusting focus by reading several blocks in a central area of
an image screen of said CMOS image sensor; and
means for taking an image over the entire screen after completion of
the focus adjustment.

26. An autofocus camera, comprising:
20 a CMOS image sensor according to claim 6;
means for adjusting focus by reading several blocks in a central area of
an image screen of said CMOS image sensor; and
means for taking an image over the entire screen after completion of
the focus adjustment.

27. An autofocus camera, comprising:
25 a CMOS image sensor according to claim 7;
means for adjusting focus by reading several blocks in a central area of
an image screen of said CMOS image sensor; and
means for taking an image over the entire screen after completion of
30 the focus adjustment.

28. An autofocus camera, comprising:
a CMOS image sensor according to claim 8;

means for adjusting focus by reading several blocks in a central area of an image screen of said CMOS image sensor; and

means for taking an image over the entire screen after completion of the focus adjustment.